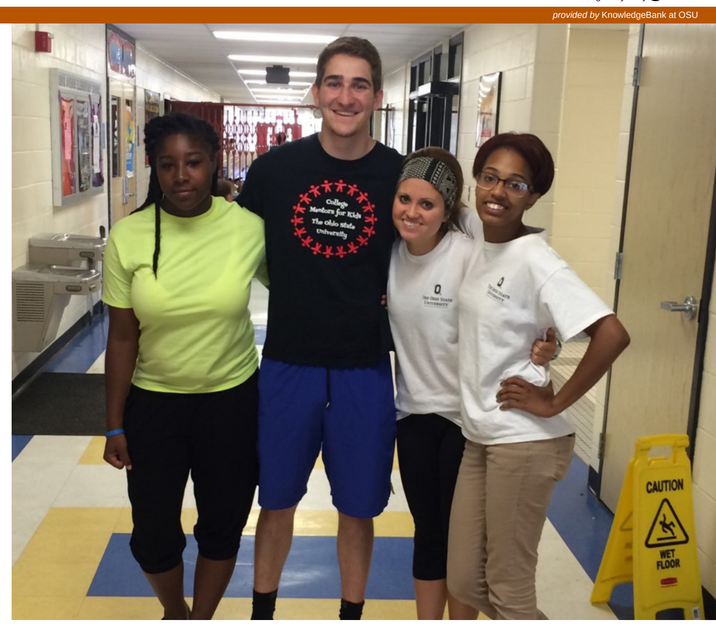
Testing Efficacy of a Theory-Based Nutrition Education Recreation and Fitness Program Aimed at Preventing Unhealthy Weight Gain in Disadvantaged Children during Summer Months: Negative Results with Policy Implications

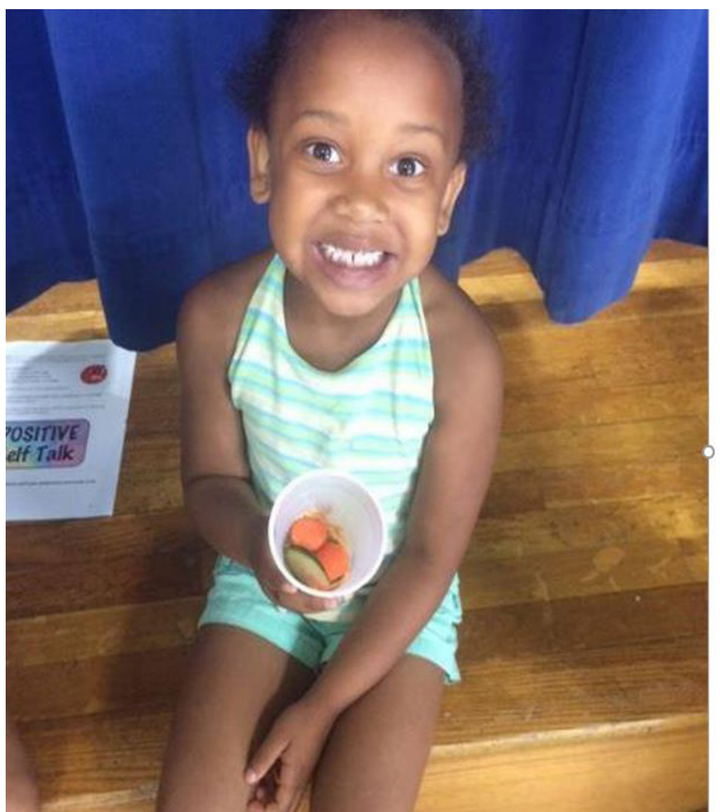


Purpose

Data indicate that school-aged children, particularly disadvantaged, experience unhealthy gains in BMI at a rate two to three times as fast during the summer versus academic months. Few efforts have been directed at implementing evidence-based programming to prevent this negative trend. Pilot tested in 2015, Camp NERF 2016 was a citywide scale up of an 8-week, multi-component (nutrition, physical activity (PA), and mental health) theory-based program for disadvantaged school-age children in grades K-5 coupled with the USDA Summer Food Service Program.

Ten eligible elementary school sites were randomized to 1 of 3 programming groups: 1) Active Control (non-nutrition, PA, or mental health curriculum); 2) Standard Care (nutrition and PA curriculum); or 3) Enhanced Care (nutrition, PA, and mental health curriculum). Program efficacy was determined by assessing change in weight status (zBMI) using hierarchical linear model analyses.

Eighty-seven child-caregiver dyads consented to the study and 81 completed post-intervention assessments, resulting in a 93% retention rate. Among child participants, approximately 56.2% (n=49) were female and 89% (n=77) were Black.



The overall mean change in zBMI from baseline to post-intervention was -0.07; however, change in zBMI did not differ statistically between groups. Results from this study indicate that engagement of disadvantaged school-aged children in structured programming over the summer months that offers access to healthy foods and safe play, as well as a child-appropriate curriculum – of any type (nutrition, PA, mental health, other) – prevents unhealthy weight gain during non-academic months.

To confirm findings from this study, further research which includes a true negative control (i.e., observation of child counterparts who do not participate in summer programming) should be conducted. Results from this research have direct implications for policy reform related to child foods and nutrition.

Impact

zBMI (decrease)

Whole fruits and vegetables (increase); high-fat/high-sodium foods, high-added sugar foods and beverages (decrease)

Physical activity (increase); sedentary behaviors (decrease); screen time (decrease)

"I liked when we got to try a lot of different foods because it opened up a lot of new experiences."

- Broadleigh Child Participant

Ohio State Colleges/Units Involved

College of Education and Human Ecology
Department of Human Sciences

Community Partners Involved

Children's Hunger Alliance
Columbus City Schools

How you can get involved:

- **Funding to support students**
- **Emergency relief boxes for families in need**

To get involved, contact:

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